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| APPLICATION NO.               | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-------------------------------|-------------|----------------------|---------------------|------------------|
| 10/734,510                    | 12/12/2003  | Allan Svendsen       | 5618.520-US         | 2614             |
| 25908                         | 7590        | 01/26/2005           | EXAMINER            |                  |
| NOVOZYMES NORTH AMERICA, INC. |             |                      | SAIDHA, TEKCHAND    |                  |
| 500 FIFTH AVENUE              |             |                      | ART UNIT            |                  |
| SUITE 1600                    |             |                      | PAPER NUMBER        |                  |
| NEW YORK, NY 10110            |             |                      | 1652                |                  |

DATE MAILED: 01/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/734,510

Applicant(s)

SVENDSEN ET AL.

Examiner

Tekchand Saidha

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 86-104 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 86-104 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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1. Applicants' preliminary amendment Fax-filed, January 12, 2005, is acknowledged. Claims 86-104 are currently pending.

***Election/Restrictions***

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 24, 27, 31, 33, 39, 40, 41, 42, 46, 49, 56, 59, 68, 69, 70, wherein each position corresponds to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.
- II. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 71, 72, 73, 74, 75, 76, 77, 78, 81, 82, 84, 116, 117, 119, 120, wherein each position corresponds to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.
- III. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 121, 122, 123, 124, 125, 127, 128, 132, 149, 150, 151, 152, 155, 156, 157, wherein each position corresponds

to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.

- IV. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 158, 159, 160, 161, 162, 163, 170f, 170g, 171, 184, 185, 187, 190, 191, 192, wherein each position corresponds to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.
- V. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 193, 194, 200, 201, 201a, 201b, 201c, 201d, 201f, 202, 223, 228, 232, 233, 235, wherein each position corresponds to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.
- VI. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 236, 237, 239, 243, 246, 253, 256, 271, 272, 274, 275, 276, 277, 279, 280, wherein each position corresponds to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase

and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.

- VII. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 283, 285, 287, 288, 292, 293, 304, 332, 333, 334, 335, 336, 338, 341, 342, wherein each position corresponds to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.
- VIII. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 343, 348, 349, 362, 364, 367, 368, 369, 370, 371, 372, 374, 375, 376 & 387, wherein each position corresponds to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.
- IX. Claims 86-104, drawn to a method of producing a modified phytase (435/196), wherein the modified phytase has phytase activity and a mutation is at one or more residues selected from a group consisting of: 393, 394, 396, 409, 412, 413, 421 & 431, wherein each position corresponds to the position of amino acid sequence of the mature *P. lycii* phytase of SEQ ID NO: 7, feed/composition comprising phytase and a process of reducing phytate levels in animal manure, classified in class 424, subclass 94.6.

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3. The inventions are distinct, each from the other because of the following reasons:

Each of the phytases of Invention I-IX, have a different structure by Introduced by way of mutation and which further imparts different enzyme activity levels. Therefore, these products are patentably distinct.

4. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their distinct structure, restriction for examination purposes as indicated is proper.

Because these inventions are distinct for the reasons given above and the search required for each of the Groups I-IX is distinct, restriction for examination purposes as indicated is proper. Typical search would involve not only commercial and sequence data bases and a close monitoring of the one or more phytase modification(s) corresponding to SEQ ID NO: 7, as compared to the numerous modification already known in the art. The search is even made harder by virtue of Applicants numbering system wherein each position correspond to mature *P. lycii* phytase of SEQ ID NO: 7. Hence an undue burden upon the Examiner to search the entire 128 positional modification, which including another 19 amino acids, and further encompass single and multiple mutations, to be searched in one application.

5. Applicants' cooperation is requested in coming forward with the numerous co-pending applications filed as well as double patenting issues, that the Applicants may be aware of in order to reduce the time required for the prosecution for this case, resulting in the issue of a valid patent will be greatly appreciated.

6. A telephone call was not made to request an oral election to the above restriction requirement. Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

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7. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tekchand Saidha whose telephone number is (571) 272 0940. The examiner can normally be reached on 8.30 am - 5.00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ponnathapu Achutamurthy can be reached on (571) 272 0928. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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January 12, 2005